DERIVATIVES - TRIG FUNCTIONS

1. $f(x) = 4(\cos x)$

2. $f(x) = 3x(\sin x)$

3. $f(x) = x^3(\sin x)$

4. $f(x) = x - x^2(\cos x)$

5. $f(x) = \dfrac{\sin\ x}{x}$

6. $f(x) = \dfrac{x^2}{\cos x}$

7. $f(x) = 2x(\cos x) + x^2(\sin x)$

8. $f(x) = \sin x \cot x$

9. $f(x) = 3x^2(\sin x) - x^3(\cos x)$

10. $f(x) = (\sin x - \cos x)^2$

11. $f(x) = \dfrac{(1 - \cos x)}{(1 + \cos x)}$

12. $f(x) = \dfrac{\cos x}{(1 - \sin x)}$

13. $f(x) = \dfrac{(x + \sin x)}{(1 - \cos x)}$

14. $f(x) = (\sin^2 x + \cos^2 x)^3$

15. $f(x) = \sin(5x + 2)$

16. $f(x) = \cos(4 - 3t)$

17. $f(x) = \cos\ (2x^2 - 3x + 1)$

18. $f(x) = \sin(2x^5)$

19. $f(x) = \cos^4(3x)$

20. $f(x) = \sin^3(x^4)$

21. $f(x) = \sin^2 x\ +\ \sin x^2$

22. $f(x) = (x^4 + \cos^4 x)^4$

23. $f(x) = \dfrac{\sin\ 3x}{\sin\ 3x + \cos\ 3x}$

24. $f(x) = \dfrac{\sin\ (3x + 4)}{(3x + 4)}$

25. $f(x) = (\sin^3 x)(\cos^4 x)$

26. $f(x) = \sin(\cos^5 x)$

27. $f(x) = (\cos x^{1/3} - \sin x^{1/3})^3$

28. $f(x) = \ln(\cos x)$

29. $f(x) = \cos(\ln x)$

30. $f(x) = \ln(x^3 \sin x)$

31. $f(x) = (\ln \sin x)^3$

32. $f(x) = x \sin x$

33. $f(x) = (\sin x)\cos x$

34. $f(x) = \tan(8x + 3)$

35. $f(x) = \csc(x^2\ +\ 4)$

36. $f(x) = \tan^2 x \sec^3 x$

37. $f(x) = e^{-3x}\ \tan x^{(1/2)}$

38. $f(x) = \dfrac{(\sec^2 x)}{(\tan\ 2x + 1)}$

39. $f(x) = \tan^3 6x$

40. $f(x) = \ln \ln \sec^2 x$